

**Amendments to the Specification:**

*Please replace the paragraph starting at page 8, line 11 with the following amended paragraph:*

Referring to Fig. 1a, each subscriber station 102 comprises antenna 110 and communication station 112. When base station 100 (not shown in Fig. 1a) transmits wireless communication signals to a subscriber station 102, antenna 110 receives wireless communication signals and transmits them through a connection to communication station 112. When communication station 112 transmits the message through a connection to antenna 110 which in turn converts the message to a wireless communication signal which is transmitted to base station 100.

*Please replace the paragraph starting at page 10, line 6 with the following amended paragraph:*

Referring to Figs. 4a-4b, antenna 202 may be attached to mount 204 with bracket 400. Bracket 400 allows antenna 202 to be rotated about mount 204, thereby changing the relative polarity of transmission sent from antenna 202 to base station antenna 106. It will be appreciated that the rotation of antenna 202 about mount 204 still maintains antenna 202 at a set plane relative to said the base station 100, which is determined by the pan and tilt orientation of mount 204. In Fig. 4a, antenna 202 is oriented in a fully upright manner as indicated by arrow 402. In Fig. 4b, antenna 202 is oriented in a manner 90° from the orientation shown in Fig. 4a per arrow 404. Accordingly, transmissions from antenna 202 using the orientation of Fig. 4b are polarized with transmissions from antenna 02 having an orientation as shown in Fig. 4a.

*Please replace the paragraph starting at page 10, line 15 with the following amended paragraph:*

Referring to Fig. 5, signals received by antenna 202 are transmitted to communication unit 208. Communication unit 208 has directional coupler 502, Network Interface Unit 504 and spectrum analyzer 506. Directional coupler 502 splits the signals

received to provide one signal tap to Network Interface Unit (NIU) 504 and another signal tap to spectrum analyzer 506. It can be appreciated that while directional coupler 502 may degrade signals received, the quality of the degradation of the signals received is known. Accordingly, measurements of signals received may be adjusted to account for signal degradations produced by directional coupler 502.

*Please replace the paragraph starting at page 10, line 22 with the following amended paragraph:*

Essentially, NIU 504 is a radio modem having multiple interfaces to process different communication protocols. In processing wireless communication signals, NIU 504 receives signals from base station 100 and demodulates the received signals to T1, ethernet or OC3 traffic streams. NIU 504 also generates messages for transmitting to base station 100 by receiving T1, ethernet, or OC3 traffic and modulating the transmitted signals such that it may be transmitted wirelessly over a radio link several kilometres long. In the embodiment, NIU 504 may be modem model 28110 (providing T1 with Ethernet communications), model 28130 (providing quad T1 with ethernet communications), all available from Alcatel Networks Corporation Canada Inc. of Kanata, Ontario, Canada. The generated messages are transmitted through connections to directional coupler 502 then to antenna 202. Antenna 202 converts the generated message to a wireless signal and transmits the wireless signal to base station 100. It can be appreciated that a bi-directional connection may be used between antenna 202 and directional coupler 502 and between NIU 504 and directional coupler 502 to transmit generated signals received from and transmitted to base station 100.

*Please replace the paragraph starting at page 13, line 7 with the following amended paragraph:*

Referring to Fig. 5, testing system 200 may also evaluate upstream wireless communication signals. When wireless testing system 200 transmits wireless communication signals to base station 100, base station 100 may instruct NIU 504 via signals encoded in downstream wireless transmissions to communication station 120 112

to decrease the power of the wireless communication signals transmitted to conform to ideal power characteristics of wireless communication signals received by base station 100. This instruction is transmitted from base station 100 to NIU 504 through antenna 202.

*Please add the following paragraphs at page 5, line 16 before the heading "BRIEF DESCRIPTION OF THE DRAWINGS":*

In another broad aspect, a method of evaluating a tentative location for a fixed subscriber communication site of a wireless communication system using a wireless testing system is provided. The wireless testing system comprises a testing antenna for communicating wireless communication signals with a transmit antenna and a receive antenna at a base station, an adjustable mount associated with the testing antenna for orienting the testing antenna in a plurality of pan orientations and a plurality of tilt orientations, an adjustable boom attached to the adjustable mount for positioning the testing antenna at a plurality of heights, a signal measuring device associated with the testing antenna and a signal attenuator associated with the testing antenna. The method comprises, at the tentative location: a) positioning the testing antenna such that an angle  $\alpha$  defined by the testing antenna as a vertex between the transmit and receive antennae is 1.5 degrees or less; b) adjusting tilt, pan, and height of the testing antenna to exchange wireless communication signals with the transmit and receive antennae; c) measuring a characteristic of the wireless communication signals received by the testing antenna by integrating a power signal of the wireless communication signals across a frequency band associated with the wireless communication signals; d) attenuating the wireless communication signals until the testing antenna no longer receives the wireless communication signals from the transmit antenna; e) calculating ambient atmospheric

and meteorological conditions corresponding to the amount of attenuation based on a distance between the testing antenna and the base station; and f) comparing the calculations of the ambient atmospheric and meteorological conditions to a predetermined threshold level required to maintain a level of service required for communications with the base station when the ambient atmospheric and meteorological conditions exist. If the level of attenuation exceeds the threshold level, the tentative location for the fixed subscriber communication site is acceptable.

In yet another broad aspect, a method of establishing an optimal location for a fixed subscriber communication site for a base station having a transmit antenna and a receive antenna is provided. The method comprises, at a tentative location for the fixed subscriber communication site: a) positioning a testing antenna such that an angle  $\alpha$  defined by the testing antenna as a vertex between the transmit and the receive antennae is 1.5 degrees or less; b) adjusting tilt, pan, and height of the testing antenna to exchange wireless communication signals with the transmit and the receive antennae; and c) measuring a characteristic of the wireless communication signals with the communication unit.

The testing antenna, receive antenna and transmit antenna may be located relative to each other to form a right angle triangle, and  $\tan \alpha$  may be less than or equal to a ratio comprising: a numerator comprising a distance from the receive antenna to the transmit antenna; and a denominator comprising a distance from the testing antenna to one of the receive antenna and the transmit antenna.

The characteristic may be power of the wireless communication signals integrated over a frequency band associated with the wireless communication signals.

The method may further comprise: attenuating the wireless communication signals until the testing antenna receives practically none of the wireless communication signals transmitted by the base station; calculating ambient atmospheric and meteorological conditions corresponding to the amount of attenuation based on a distance between the testing antenna and the base station; and comparing the ambient atmospheric and meteorological conditions to a predetermined threshold level required to maintain a level of service required for the testing antenna to communicate with the base station when the ambient atmospheric and meteorological conditions are present between the base station and the testing antenna.

The method may further comprise: repeating steps a), b) and c) at a second location; comparing characteristics measured at the tentative location and the second location; and selecting one of the tentative location and the second location as the optimal location based on the step of comparing characteristics.

The method may further comprise variably attenuating the wireless communication signals before evaluating the characteristics of the wireless communication signals to simulate ambient atmospheric and meteorological conditions around the wireless testing system.